

Wildlife Without Borders

Office of International Affairs, U.S. Fish & Wildlife Service
Update, Fall 1999



Dover

Wetlands are one of the most important and undervalued ecosystems on our planet. Traditionally we think of swamps—dark, dank places full of biting insects and venomous snakes—as undesirable areas which need “improvement”. In truth, most of what we do depends upon wetlands: clean water, food (fish and rice), transportation (petroleum comes from ancient wetlands), flood control, shoreline protection, and many forms of recreation are all linked to wetlands. The level of biodiversity in wetland ecosystems is extremely high, second only to tropical rainforests.

We are destroying wetlands at an alarming rate. The U.S. has lost 53% of its wetlands since the 1700s, and many European countries are following a similar pattern. Only a global wetland conservation effort can stop this devastation before it is too late.

Fostering worldwide wetland conservation is the primary goal of the *Convention on Wetlands of International Importance*. Commonly known as Ramsar, in honor of the town in Iran where it was signed in 1971, the Convention promotes conservation activities that also incorporate human use. Ramsar is the only global environmental treaty that deals with a specific ecosystem. Members include 116 countries which have designated 1,006 wetlands for conservation.

Participation in Ramsar is straightforward. Contracting Parties agree to: 1) Designate at least one site that meets the Ramsar criteria (unique wetland; critical for rare or endangered species; supports large numbers of waterbirds; and/or is important for fish); 2) Include wetland conservation planning within their national land-use planning; 3) Establish nature reserves on wetlands and promote training initiatives in wetland management; and 4) Consult with other Parties about wetland conservation.

The U.S. joined Ramsar in 1986. Spearheaded by the Fish & Wildlife Service, U.S. participation has expanded to include 17 sites from throughout the country. The Service works with other organizations and individuals to assist Ramsar sites and promote wetland conservation. A high priority is to complement wetland protection activities already underway at our national wildlife refuge system. Equally important are efforts to link domestic sites with international ones. These connections are especially critical for migratory birds that depend on a network of healthy wetlands in order to complete their annual journeys. Shorebirds like the tiny Sanderlings, which nest in northern Canada and migrate to the tip of South America, are relying on us to make global conservation efforts work.

The Ramsar Convention fosters wetland conservation throughout the world



FWS photo

Global View

Many of us in the conservation world talk about the importance of partnerships. But what does the word “partner” really mean? Too often we develop projects, obtain funding, and then seek to involve partners only at the implementation stage. A true partner collaborates from the very beginning and is involved in defining mutually beneficial goals and objectives. This puts everyone on an equal footing.

At the Fish & Wildlife Service, the Office of International Affairs believes in establishing conservation partnerships at the very start of any project. Whether we are working in China, Latin America, Africa, India, or Russia, we meld our priorities with those of the other nations before taking action.

A good example of this type of partnership is the masters level training program for natural resource management in Guanare, Venezuela. Back in the 80’s, the Service and the Ezequiel Zamora National Experimental University of Venezuela independently came to the conclusion that a graduate level training program for wildlife specialists was essential to advance conservation efforts in Latin America. Upon discovery of this shared interest, the Service collaborated with Venezuela to develop the *Biodiversity Management Graduate Program*. Started in 1989, the program now serves an important training niche for northern South America.

Although it takes more time to develop a program in partnership with another nation, the long term benefits are enormous. Such programs are more self-sustaining and effective than those designed unilaterally. The extra effort is worth it.

Herb Raffaele
Chief, Office of International Affairs

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A Map is Worth 1,000 Words

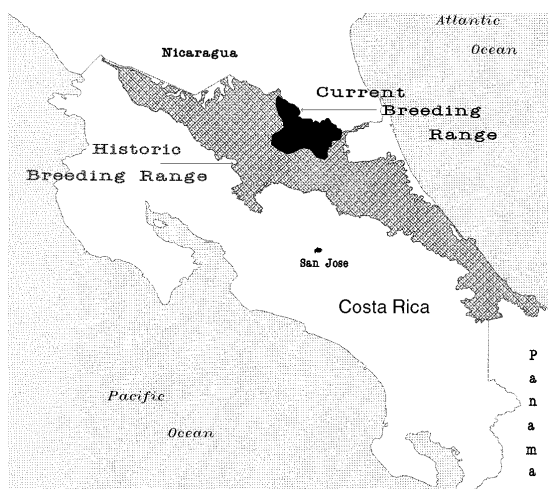
Maps are an essential tool for conservationists. A map can convey as much information as a written document, and do so more quickly and effectively. Whether used in presentations to decision makers, the media, local community groups, or at scientific conferences, a well designed map is worth its weight in gold.

Special maps are produced by Geographic Information Systems (GIS), which can analyze normally incompatible spatial and statistical data. A GIS map displays the results of this analysis, perhaps as physical, climatic, demographic, or ecological features. The GIS known as CAMRIS (*Computer Aided Mapping and Resource Inventory System*), was created by Glenn Ford to analyze biological information. CAMRIS is a relatively simple program that can be used in the field on a portable computer. The maps below illustrate how CAMRIS was used to design a park for the conservation of the Great Green Macaw in Costa Rica. Researchers used CAMRIS to outline the current breeding and migration range of the macaw. Maps showing the macaw's drastically reduced breeding range and the recommended park boundaries were presented to government officials and helped influence the decision to create a reserve.

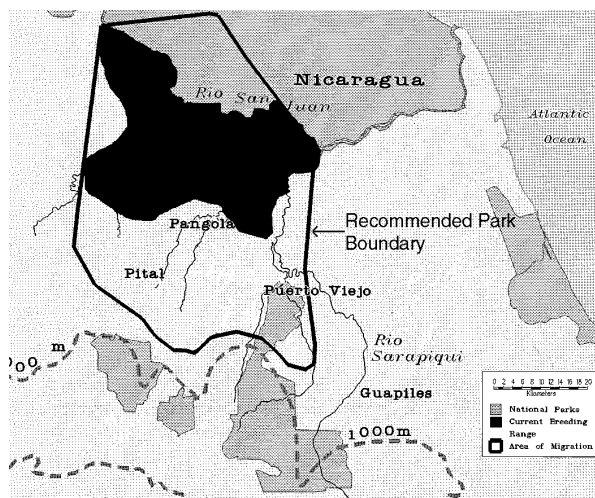
CAMRIS is so simple and easy to use for conservation biology applications, that the Fish & Wildlife Service has sponsored an effort to teach CAMRIS to people in Latin America and the Caribbean. Ordinarily conservationists in these countries have limited access to GIS technology and certainly not to one that can be used in the field. Now through a series of training workshops, natural resource specialists from the region have the opportunity to learn a GIS adapted especially for their needs.

In the introductory 4-day workshop, participants learn the principles of GIS and how to use CAMRIS to map basic data sets. By the third day students are printing their own maps, which in some cases represent the first map ever created for a particular park. More advanced workshops teach students how to design protected areas, include demographic information in their maps, and incorporate satellite images with their data sets.

Many students have written to say how CAMRIS has helped them in their endeavors. From park planning to studies of habitat use, CAMRIS has made it easier for conservationists in Latin America to present their work in a compelling manner.

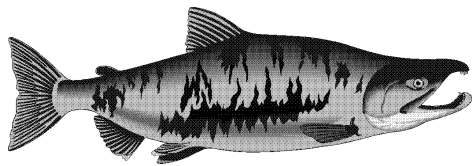


Historic and current breeding ranges of the Great Green Macaw in Costa Rica.
Maps courtesy CAMRIS



Recommended park boundary that encompasses the breeding and migratory areas of the Great Green Macaw in Costa Rica

Fish Tales: US & Russia Swap Stories



Salmon are in trouble. In the Pacific Northwest, wild salmon populations have plummeted to very low numbers and their continued survival is threatened by habitat loss, hydroelectric dams, and the overproduction of hatchery-raised fish. In Russia the same salmon species are not faring too well either, due to uncontrolled poaching. Specialists from both the U.S. and Russia believe that a good way to help salmon recover is through wise management of hatchery fish. Effective management, however, has not yet been achieved on either side of the Pacific.

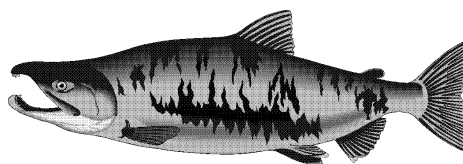
In an effort to improve management and share experiences in salmon conservation techniques, 85 biologists from the U.S. and Russia met in Khabarovsk, Russia, 4-8 October 1999. Jointly organized by the Fish & Wildlife Service and the Russian Pacific Research Institute for Fisheries & Oceanography, the *Russian-American Conference on Salmon Conservation* marks the first time so many experts from these two nations have met to discuss the practical aspects of salmon protection.

Each country has much to gain from sharing information with the other. Americans hope to learn more about wild salmon population dynamics from their Russian counterparts. In the U.S., habitat loss and contamination have impacted wild salmon so severely that four species are listed as endangered. Past recovery efforts focused on stocking rivers with artificially

reared fish, but this has led to diminished genetic diversity and threatens the survival of the remaining wild populations. The situation is extremely critical in the Pacific Northwest, which views salmon conservation as one of its highest priorities. In the words of Seattle Mayor Paul Schell, "No one wants to tell their children they saw the last wild salmon."

In Russia, Pacific salmon enjoy much more pristine habitat and are not impeded by man-made dams during their annual migrations. The 800-mile long Kamchatka Peninsula is home to the world's greatest concentrations of salmon, steelhead, trout and char. The worst threat to salmon in this region comes from illegal harvesting, which can constitute at least half the total catch. Russians are hoping to augment the declining wild population with hatchery fish and to learn more about salmon genetics from American experts.

An important outcome of the October conference was the formation of a bilateral working group. This group will adopt species specific projects and work together to improve the future of salmon populations on both sides of the Pacific.



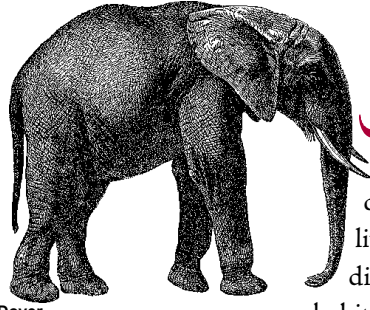
Upper Left and Above:
Salmon Corel Corp.

Center:
"Two Hearts United by a Fish" Artist Kathryn Kostow

What is good for salmon—clean water, healthy watersheds—is good for humans also.

Cathleen Short, Assistant Director Fisheries, Fish & Wildlife Service

African Elephants in the New Millennium



African elephants are adaptable creatures. They live in a wide diversity of habitats, from the

fringes of Africa's great deserts to the dense tropical forests of the Congo basin. In order to thrive, elephants require access to vast tracts of habitat, rich in plant matter. Not only do they eat enormous quantities of herbaceous material, they also undergo annual migrations covering hundreds of miles. Over the centuries, prime habitat in Africa has been converted to farmland and human settlements, leaving very little for elephants. Habitat loss, combined with extensive ivory poaching have severely restricted the elephant's range and greatly reduced its populations—by much more than 50% in some areas.

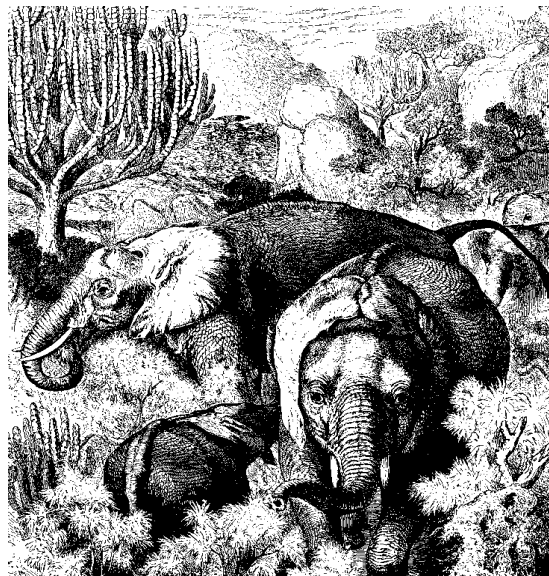
Alarmed by this downward plunge, the U.S. Congress passed the African Elephant Conservation Act in 1988 to assist African nations in the conservation of elephants and their habitats. The Act established a fund for projects in Africa. These funds are administered by the Fish & Wildlife Service as the *African Elephant Conservation Fund*.

To date, the Fund has supported 80 projects in 18 African countries. The projects are implemented by local and international organizations from both the government and private sectors. Activities involve anti-poaching efforts; training programs for protected area personnel; research on elephant population behavior and ecology; development of elephant management plans; and implementation of conservation education programs. In addition, studies have been conducted on how to minimize conflicts between humans and elephants.

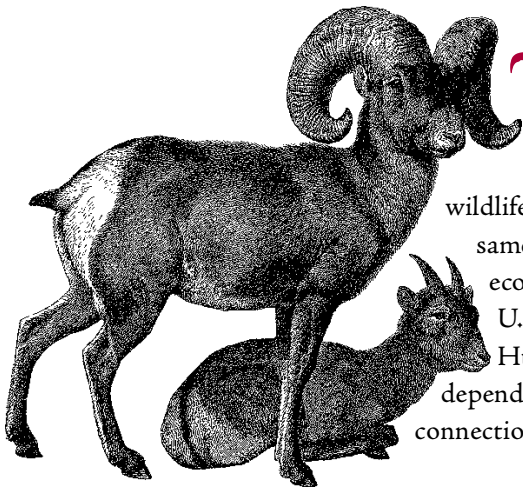
Many of these projects have greatly benefited elephant populations. Specific examples include:

- As a result of several conservation projects, the number of elephants in the Dzanga-Sangha Reserve in the Central African Republic nearly doubled, from 1,336 in 1992 to 2,524 in 1999.
- Use of aircraft to monitor poaching in the northern Congo region has reduced illegal hunting. Poaching has completely stopped in some key areas, such as the Mouadje section of Odzala National Park.
- Ongoing training programs for local biologists in Kakum National Park, Ghana, and Marahoue National Park, Ivory Coast, have helped improve conservation and management at these parks.

Due to increasing competition with humans over limited habitat, the future for African elephants is bleak. However, international efforts like the Fund are providing management alternatives to help turn the outlook for elephants into a positive one.



Amigos for Biodiversity Conservation



Bighorn Sheep
Dover

The 2,235-mile border separating the U.S and Mexico is an artificial construct that does not hinder the flow of wildlife. Our nations share many of the same plants, animals, and even ecosystems. Biologically speaking the U.S. is linked closely to Mexico. Hundreds of migratory species that depend upon both countries make this connection even more vital.

Recognizing that joint efforts would better conserve this shared biological wealth, Mexico and the U.S. drafted the *Convention of the Protection of Migratory Birds and Game Mammals* in 1936. Sixty-three years and several conservation agreements later, the partnership is flourishing. An important result of this collaboration is the

Service's *Wildlife Without Borders - Mexico Program*. Working with Mexico's Ministry of the Environment, Natural Resources and Fisheries (SEMARNAP), the Service has supported 107 conservation projects conducted by institutions, government agencies, local community groups, and individuals in both countries. These efforts have benefited 62 species of international concern such as the Bighorn Sheep and Pronghorn Antelope, provided training in natural resource management to approximately 6,000 people, and assisted 28 reserves.

The Service and SEMARNAP are committed to strengthening this partnership by reaching out to more cooperators and highlighting key watersheds where activities will bring the greatest conservation benefit.



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